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United States
Environmental Protection
Agency

Office of Public Affairs
Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Illinois Indiana
Michigan Minnesota
Ohio Wisconsin

■ This Fact Sheet Will Explain . . .

- The history of the site.
- The results of the site investigation.
- The cleanup alternatives evaluated.
- U.S. EPA's preferred cleanup alternative.
- How the public can participate in choosing the final cleanup plan for the site.
- How to obtain more information on the site.

■ Public Meeting

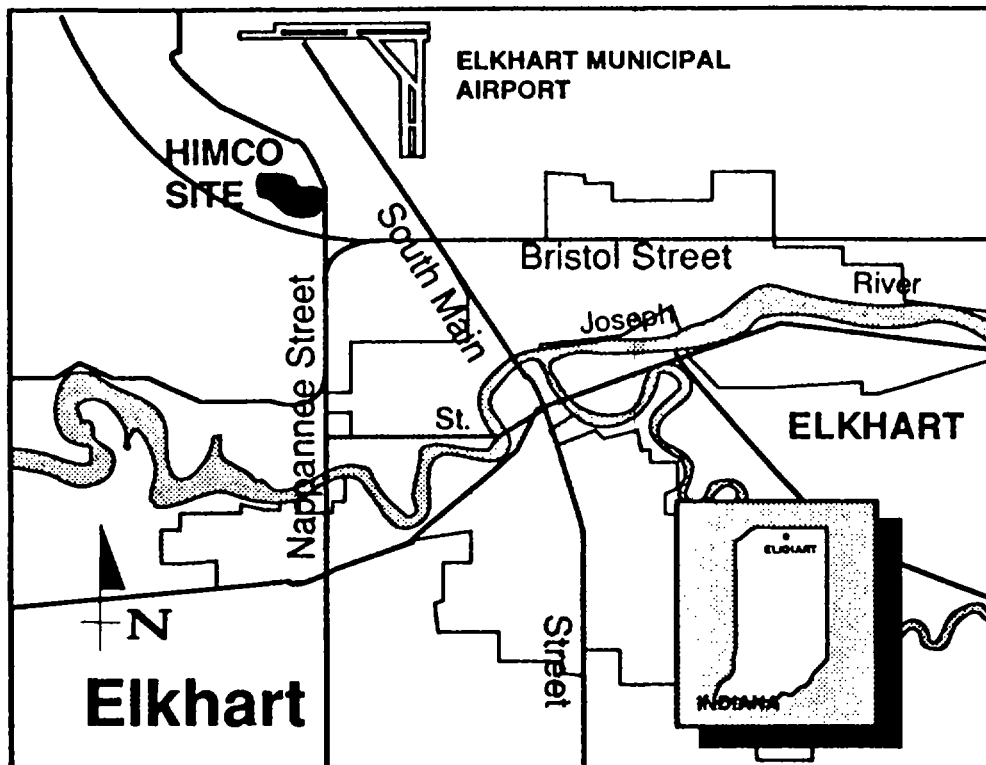
U.S. EPA is sponsoring a Public Meeting regarding the Himco Dump Superfund site. U.S. EPA representatives will present information on the cleanup alternatives considered for the site, and explain their preferred cleanup plan. U.S. EPA is also accepting your verbal and written comments regarding cleanup alternatives, including the preferred alternative. The meeting will be:

Tuesday, October 6, 1992
7:00 p.m.

The City Council Chambers
2nd Floor
Municipal Building
229 South Second Street
Elkhart, IN 46516

EPA Recommends Cleanup Plan for Himco Dump

Elkhart, Indiana
September 1992



■ Introduction

The U.S. Environmental Protection Agency (U.S. EPA) in consultation with the Indiana Department of Environmental Management (IDEM) have recently completed a study of the contaminants at the Himco Dump Superfund site in Elkhart, Indiana. Four alternatives were evaluated that address contaminants at the site. These alternatives, including the one U.S. EPA prefers, are described in this fact sheet.

The complete **Proposed Plan** and the **Feasibility Study (FS)**, along with other

documents relating to the Himco Dump site, are available for public review at the local information repositories (see back page).

Before making a final decision on the proposed plan, however, U.S. EPA in consultation with IDEM will consider all significant comments regarding the proposed plan. The public is invited to comment at the public meeting on October 6, 1992, or in writing during the 30-day public comment period. (See "Public Comments Invited.")

NOTE: Terms In Bold Face Appear In The Glossary On Page 5

■ Site History and Remedial Investigation

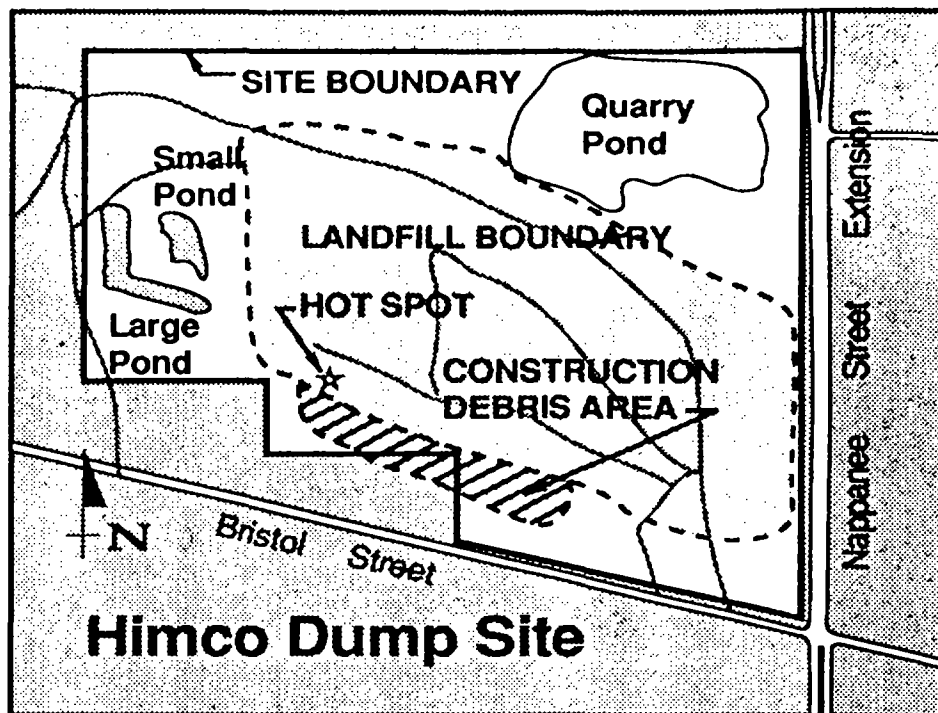
Background

Himco Dump, located near the intersection of County Road 10/Bristol Street and the Nappanee Street Extension in Elkhart, Indiana, covers approximately 100 acres within Cleveland Township. Within a one-mile radius of the site are residential, commercial, industrial, and agricultural areas. About two miles north of the St. Joseph River, the site is bounded on the north by a tree line and a gravel-pit pond, on the west by a tree line and two ponds, on the south by County Road 10 and private homes, and on the east by the Nappanee Street Extension. (See site location map.)

The approximate landfill boundaries are shown on the detailed site map. Many small piles of rubble, concrete, asphalt, and metal debris lie south of the landfill and north of County Road 10. This is referred to as the "construction debris area."

The Himco Dump site was used as a landfill by Himco Waste Away Service, Inc., from 1960 until September 1976. Landfill operators accepted calcium sulfate from Miles Laboratories (now Miles, Inc.), demolition and construction debris, industrial and hospital wastes, and some household garbage. No liner was used to prevent contaminants from seeping into the ground and water table. There is no recovery system for gas or leachate.

Because of problems with well water reported by residents directly south of the Himco site, the Indiana State Board of Health (ISBH) ordered Himco Dump closed in 1976. A 1979 study by the United States Geological Survey found that contamination from the landfill was adversely affecting the area groundwater. In 1984, U.S. EPA conducted a site inspection at Himco Dump. Himco Dump was evaluated and later proposed for U.S. EPA's National



Priorities List (NPL) in June 1988 and was designated a final NPL site in February 1990. The RI/FS for the site was begun in 1989 and completed in 1992.

Results of Remedial Investigation (RI)

The RI examined soils, landfill gas, landfill leachate, surface water and sediments of three on-site ponds, and groundwater.

The RI identified 29 chemicals that potentially pose unacceptable risks for cancer or other health problems to current or future residents south of the landfill. Grouped into three types, they are: volatile organic compounds (VOCs); semi-volatile organic compounds (SVOCs); and inorganic compounds. Although some of the contaminants were found throughout the site, the RI showed that contamination is principally in the landfill leachate, landfill waste, and the soil in and south of the construction debris area.

Over time, contaminants can change, move, or degrade. This means that

contaminants at the landfill, the construction debris area, and south of the construction debris area have a potential for moving into the groundwater. Sampling during the RI, however, revealed very limited or no impact in the groundwater outside the boundaries of the landfill.

Additionally, VOCs have the potential to vaporize and spread through soils and landfill gas. The landfill gas analysis showed a relatively small amount of VOCs leaving the site in this manner.

"Hot Spot" Removal

During the RI, a "hot spot" (an isolated area of highly concentrated contaminants) was identified at the southwest border of the landfill. (See site map.) Since this area showed a high level of VOCs contamination, such as toluene and ethylbenzene, U.S. EPA conducted an emergency action beginning on May 22, 1992. This action located and removed 71, 55-gallon drums containing VOCs. No other hot spots have been found at the site.

■ Selecting A Remedy

Based on the RI results, U.S. EPA conducted a Feasibility Study (FS) to analyze all possible cleanup alternatives for the site. The FS was completed in September 1992.

Summary of Risks

As part of the RI, a risk assessment report was prepared by U.S. EPA to determine whether contamination related to the site poses risks to human health or the environment. The evaluation considered the manner in which people could be exposed to site-related contaminants, and estimated whether the contaminants could pose a threat to human health and the environment.

Currently, conditions do not show unacceptable risk to human health and the environment. The principal risk would be from the consumption of contaminated drinking water within the landfill area, if it were to be developed. There is also risk from exposure to the contaminated soil in the construction debris area. Contamination of the environment is continuing through the release of leachate to soils and groundwater from the landfill. Additionally, actions or threatened releases of hazardous substances from the landfill, if not addressed by one of the cleanup alternatives, may present a future potential threat to public health, welfare, or the environment.

Cleanup Objectives

U.S. EPA has developed the following objectives for cleaning up the Himco Dump site:

- Prevent direct contact with landfill contents and contaminated soils in the construction debris area.
- Control groundwater usage in the vicinity of the site.
- Minimize leaching of site contaminants to groundwater.
- Maintain the long-term integrity of a cap covering the site.

■ Cleanup Alternatives

The FS identified four cleanup alternatives and evaluated them in detail according to U.S. EPA's nine criteria. (See page 4 for the criteria.) Following are brief explanations of the alternatives.

Alternative 1: No Action

The Superfund program requires that a "no action" alternative be considered at every site. This no-action alternative assumes that nothing would be done to address any human health and environmental concerns. No cost would be associated with this alternative.

This alternative was not proposed for the site because U.S. EPA, in consultation with IDEM, concluded that cleanup actions are needed to adequately protect human health and the environment.

Alternative 2:

Construct a single barrier, solid waste cap to cover and contain the entire landfill and the contaminated soils in the construction debris area and soils south of the landfill within the site boundary. This cap would consist of 18 inches of soil, a 6-inch layer of sand for drainage, and a 24-inch layer of clay; collect and treat landfill gases; monitor the groundwater for 30 years; restrict access to the Himco site for present and future uses by fencing and imposing future building deed restrictions; and restricting pumping from the aquifer within the site area. The estimated capital cost of this alternative is \$7,539,000 with an estimated annual operation and maintenance (O&M) cost of \$210,000, and a present net worth (PNW) cost of \$10,429,000. It is estimated that it would take 14 months to implement.

Alternative 3:

Install a single barrier, solid waste cap, as in Alternative 2; institute a perpetual collection and disposal of leachate at an off-site treatment, storage, and disposal facility (TSDF); collect and treat landfill gases, as in Alternative 2; monitor groundwater, as in Alternative 2; restrict access, as in Alternative 2. The estimated capital cost is \$13,628,000, with an estimated annual O&M cost of \$982,000, and a PNW cost of \$27,140,000. It is estimated that it would take 21 months to implement.

For additional information, the public is encouraged to review the full Proposed Plan, which can be found in the information repositories. (See last page for locations.)

See U.S. EPA's Preferred Alternative on page 4.

Alternative 4: (U.S. EPA'S PREFERRED ALTERNATIVE)

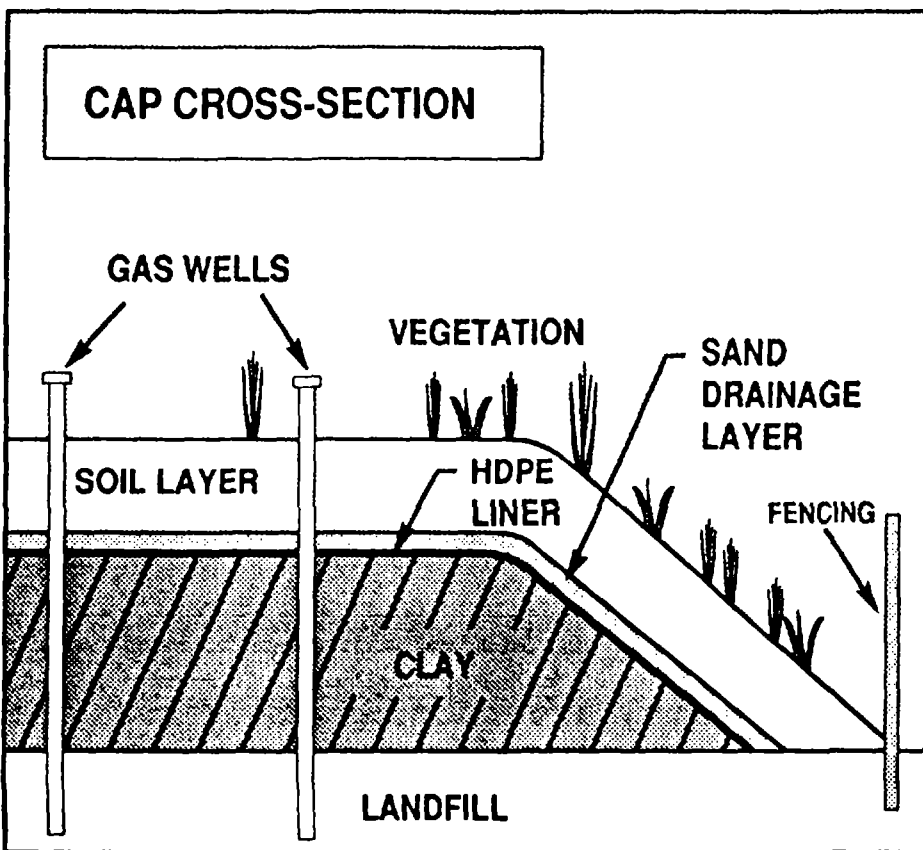
Install a composite barrier, solid waste cap to cover and contain the entire landfill and the contaminated soils in the construction debris area. The

composite cap will be the same as the cap proposed in Alternative 2 with one exception. In addition to the three layers (18 inches of soil, 6 inches of sand, and 24 inches of clay), there would be a liner of high density polyethylene (HDPE), a

nonporous material, to greatly reduce the generation of leachate. Collect and treat landfill gas, as in Alternative 2; monitor groundwater, as in Alternative 2; and apply institutional controls, as in Alternative 2. This remedy would cost an estimated \$8,931,000, with an estimated annual O&M cost of \$210,000, and a PNW cost of \$11,821,000. It would take about 15 months to implement.

U.S. EPA prefers Alternative 4 because it uses a composite barrier cap, rather than the single barrier cap included in Alternatives 2 and 3. This composite cap will provide greater reduction of risks for human health and the environment by greatly reducing infiltration into the landfill. Reducing infiltration will minimize the potential for the release of landfill leachate into the groundwater and environment outside the landfill boundaries. Current data show that groundwater outside the landfill has not been impacted to a level of health or environmental concern by the site contaminants.

The State of Indiana supports U.S. EPA's preferred remedy.



Evaluating the Cleanup Alternatives

U.S. EPA uses nine factors to evaluate cleanup alternatives. This evaluation is the basis for selection of the final cleanup plan at Superfund sites. The nine factors are summarized below:

(1) **Overall protection of human health and the environment.** To what degree does the cleanup option eliminate, reduce, or control threats to public health and the environment?

(2) **Compliance with state and federal regulations.** Does the cleanup option meet environmental or other regulations?

(3) **Long-term effectiveness and permanence.** Will the cleanup option

be reliable in protecting public health and the environment over many years?

(4) **Reduction of contaminant toxicity, mobility, and volume.** How well does the cleanup option reduce the harmful nature of the chemicals, prevent chemicals from moving off-site into the surrounding areas, and decrease the levels of pollution?

(5) **Short-term effectiveness.** How long will it take to carry out the cleanup option? Does its implementation pose any risks to workers and nearby residents?

(6) **Implementability.** How difficult

will the cleanup option be to build and operate? Is the required technology available?

(7) **Cost.** How do the benefits of the cleanup option compare with its cost?

(8) **State acceptance.** Does IDEM support or oppose U.S. EPA's proposed cleanup plan? What comments has IDEM made on U.S. EPA's technical reports and the proposed plan?

(9) **Community acceptance.** What comments do local residents and other members of the public have about the U.S. EPA's proposed cleanup plan? Does the public support or oppose it?

■ Public Comment Invited

Comments provided by residents and other interested parties are valuable in helping U.S. EPA select a final cleanup plan. The Agency encourages you to share your views about the preferred cleanup plan and the other alternatives presented in the Feasibility Study.

U.S. EPA provides you with two methods to express your opinion during the public comment period:

1. You may submit oral and written comments to U.S. EPA during the public meeting on October 6, 1992, at the City Council Chambers, Elkhart Municipal Building. A court reporter will be present

to record oral comments.

2. You may send written comments to Dave Novak, the community relations coordinator for the Himco Dump Superfund site. His address is listed under "For More Information." Comments must be postmarked by October 29, 1992.

After the public comment period is concluded, U.S. EPA, in consultation with IDEM, will respond to all significant comments in a document called a Responsiveness Summary. The Responsiveness Summary is part of the Record of Decision (ROD) and will be

made available to the public in the information repositories (see page 6). All documents related to the site are available at the information repositories located at the Elkhart Public and the Moran Branch Libraries.

For more information on the Himco Dump Superfund site, please contact Dave Novak at U.S. EPA's toll-free number: 1-800-621-8431.

The Superfund law requires U.S. EPA to provide the public with the opportunity to submit written and oral comments concerning the cleanup alternatives and the Proposed Plan.

■ Glossary

Aquifer An underground layer of rock or soil that can supply usable quantities of groundwater to wells and springs.

Feasibility See Remedial Investigation.

Groundwater Water contained in rock, soil, sand, or gravel beneath the earth's surface. Rain that does not evaporate or immediately flow to streams and rivers slowly seeps into the ground to form groundwater reservoirs. When it occurs in a sufficient quantity, groundwater can be used as a drinking water supply.

Inorganic Describes chemical elements or compounds that do not contain carbon. Examples would include lead, chromium, cadmium, and zinc.

Leachate Leachate is not a specific chemical itself; it is a liquid that has percolated through wastes and contains components of these wastes. For instance, water may mix with leaking wastes inside a landfill, become contaminated, and then seep into the water table, polluting groundwater.

National Priorities List (NPL) A federal roster of hazardous waste sites that actually or potentially threaten human health or the

environment and are eligible for investigation and cleanup under the federal Superfund program.

Present Net Worth (PNW) An economic term used to describe today's cost for a Superfund cleanup that reflects the discounted value of future costs.

Proposed Plan A plan issued according to Section 117(a) of the Superfund Act. It summarizes the cleanup alternatives, including the preferred alternative. U.S. EPA has considered for controlling contamination at a Superfund site.

Record of Decision (ROD) Documents the action plan for the remedy chosen for a site and provides background on the decision. The ROD also provides the basis for future U.S. EPA efforts to recover Superfund monies spent on cleanup from responsible parties.

Remedial Investigation/Feasibility Study (RI/FS) A two-part study of a Superfund site that must be completed before a cleanup can begin. The first part, the RI, determines the nature and extent of contamination at a Superfund site. The second part, or FS, evaluates alternative remedies (including no action) designed

to address the problems identified during the RI.

Sediment Mud, sand, soil, gravel, and decomposing animals and plants that settle to the bottom of a stream, lake, river, ditch, or other body of water.

Semi-volatile Organic Compounds (SVOCs) Organic compounds that tend to change from liquids to gases at relatively high temperatures.

Superfund The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). CERCLA, updated and improved in 1986 by the Superfund Amendments and Reauthorization Act (SARA).

Volatile Organic Compound (VOC) Organic compounds that tend to change from liquids to gases at relatively low temperatures when exposed to air. Since groundwater does not usually come in contact with air, VOCs are not easily released. When present in drinking water, VOCs may pose a potential threat to human health. Some VOCs, such as toluene, are believed to cause cancer in humans.

■ For More Information

If you have further questions about the Himco Dump Superfund site, you may contact:

Dave Novak
Community Relations Coordinator
Office of Public Affairs (PS-19J)
U.S. EPA, Region 5
77 West Jackson Boulevard
Chicago, IL 60604
(312) 886-9840

Mary Elaine Gustafson
Remedial Project Manager
Office of Superfund (HSRL-6J)
U.S. EPA, Region 5
77 West Jackson Boulevard
Chicago, IL 60604
(312) 886-6144

James R. Smith
Indiana Department of
Environmental Management
5500 West Bradbury Avenue
Indianapolis, IN 46241

Information Repository

If you would like to review the Proposed Plan, FS or other documents about the Himco Dump site, you may consult the information repositories in Elkhart. Copies of laws, work plans, technical reports, community relations plans, and other documents relevant to the investigation and cleanup of the Himco Dump Superfund site are available at two locations:

Elkhart Public Library
Reference Department
300 South Second Street
Elkhart, IN 46516
(219) 522-5669

Pierre Moran Branch Library
2400 Benham Avenue
Elkhart, IN 46517
(219) 294-6418

U.S. ENVIRONMENTAL PROTECTION AGENCY

**CALL TOLL FREE:
1-800-621-8431**

9:00 am to 4:30 pm Central Time



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U.S. EPA, Region 5
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Chicago, IL 60604